

IN THE CLAIMS

1. (currently amended) A power supply over-drive protection system for a DUT comprising:

a processor coupled to a memory via a bus, said memory having instructions that when executed implement a method of monitoring power coupled to said DUT comprising:

- a) determining whether ~~an activity signal~~ a clock signal from a DUT is received, said ~~activity signal~~ clock signal generated by said DUT when said DUT is coupled to an external power source;
- b) if said ~~activity signal~~ clock signal is received in a), generating a signal for preventing the coupling of power to said DUT from an in circuit emulator;
- c) if said ~~activity signal~~ clock signal is not received in a), coupling power to said DUT from said in circuit emulator;
- d) if said ~~activity signal~~ clock signal is not received in response to c), decoupling power to said DUT from said in circuit emulator and generating a fault condition signal.

2. (original) A system as described in Claim 1 wherein said DUT is a microcontroller.

3. (original) A system as described in Claim 1 wherein said DUT is located on a pod configured to couple said DUT to a power source in said in circuit emulator.
4. (original) A system as described in Claim 1 wherein said step a) and said step d) are configured to prevent a simultaneous coupling of said DUT to more than one power source.
5. (cancelled)
6. (original) A system as described in Claim 1 wherein said DUT is located on a pod coupled to said in circuit emulator using a cable.
7. (original) A system as described in Claim 1 wherein said fault condition signal comprises setting a memory location bit to indicate a fault occurrence.
8. (currently amended) A method for protecting a DUT from a power supply over-drive condition comprising:
- a) determining whether an activity signal from a DUT is received, said activity signal generated by said DUT when said DUT is coupled to an external power source, wherein said DUT is a microcontroller;

- b) if said activity signal is received in a), generating a signal for preventing the coupling of power to said DUT from an in circuit emulator;
- c) if said activity signal is not received in a), coupling power to said DUT from said in circuit emulator;
- d) determining whether said activity signal is received in response to c);
and
- e) if said activity signal is not received in d), decoupling power to said DUT from said in circuit emulator and generating a fault condition signal.

9. (cancelled)

10. (original) A method as described in Claim 8 wherein said DUT is located on a pod configured to couple said DUT to a power source in said in circuit emulator.

11. (original) A method as described in Claim 8 wherein said step a) and said step d) are configured to prevent a simultaneous coupling of said DUT to more than one power source.

12. (original) A method as described in Claim 8 wherein said activity signal from said DUT is a clock signal.

13. (original) A method as described in Claim 8 wherein said DUT is located on a pod coupled to said in circuit emulator using a cable.

14. (original) A method as described in Claim 8 wherein said fault condition signal comprises setting a memory location bit to indicate a fault occurrence.

15. (currently amended) An external power detection and power supply over-drive protection system for a DUT comprising:

a host computer system;

an in circuit emulator coupled to said host computer system, said in circuit emulator having an in circuit emulator power source for activating a DUT, wherein said in circuit emulator comprises a field programmable gate array capable of emulating said DUT;

a pod coupled to said in circuit emulator and coupled to said DUT; and

an external power source for activating said DUT;

wherein said host computer system includes a memory having computer readable instructions that when executed by the host computer system implement a method of supervising the coupling of power to said DUT comprising:

a) detecting whether an activity signal is generated by said DUT, said activity signal caused by coupling said DUT to said external power source

- b) if said activity signal is detected in a), generating a signal for preventing the coupling said DUT to said in circuit emulator power source;
- c) if said activity signal is not detected in a), coupling said in circuit emulator power source to said DUT; and
- d) in response to c), if said activity signal is not detected, decoupling power to said DUT from said in circuit emulator power source and generating a fault signal.

16. (original) A system according to Claim 15 wherein said DUT is a microcontroller.

17. (cancelled)

18. (original) A system according to Claim 15 wherein said activity signal from said DUT is a clock signal.

19. (original) A system according to Claim 15 wherein said DUT is located on a pod coupled to said in circuit emulator by a CAT 5 cable.

20. (original) A system according to Claim 15 wherein said fault signal comprises a bit set in a memory location recognizable as said fault signal.